

Interagency Wildland Rehabilitation and Hazard Mitigation Team Report

Recommendations For Idaho Communities, Infrastructure, and Resources at Risk From Wildfires and Related Events

SEPTEMBER 2000

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Introduction

Overview and Purpose

In order to address the rising costs and the multi-jurisdictional issues involved in hazard reduction, the Federal Emergency Management Agency and the Idaho Bureau of Disaster Services, along with other Federal, State and local agencies, have adopted a comprehensive and coordinated approach to hazard mitigation.

The basis of this intergovernmental approach, aimed at reducing future economic and agricultural losses related to disaster events, is contained in the following reports: the Interagency Wildland Rehabilitation and Hazard Mitigation Team Report, the Interagency Economic Disaster Recovery Team Report, and the Interagency Agricultural Disaster Recovery Team Report. Each Team's Report is an effort to incorporate the background and expertise of officials, at every level of government, thus promoting a comprehensive approach to loss reduction. The Interagency Wildland Rehabilitation and Hazard Mitigation Team (IWRHMT) report focuses on rehabilitation and hazard mitigation measures.

This report provides an executive summary and event description, addresses long-term recovery issues and recommendations, identifies program resources, and provides a contact list of the individuals who participated in the IWRHMT. The Issues and Recommendations section contains elements from past Interagency Hazard Mitigation Team Reports, and the 2000 IWRHMT meeting.

The IWRHMT convened in Boise at the Disaster Field Office on September 15, 2000, to develop a coordinated plan. This plan provides a framework for various Federal, State and local agencies to facilitate the rehabilitation of public, private and tribal lands, and mitigate future problems associated with this year's wildfires in Idaho. The team members identified thirty-one Program Resources and twenty-six Issues and Recommendations. The Issues and Recommendations section contains the following subparts: Rehabilitation and Mitigation Advisory Groups; Technical Assistance Issues; Public Education Issues; Watershed Issues; Habitat Restoration Issues; Mudslide, Landslide, Erosion, and Debris Flow Issues; Flood Issues; and Hazardous Materials Issues.

Introduction Continued

Implementation

The establishment of a State Interagency Commission creates a formal process that adds a measure of continuity and accountability to the resolution of long-term recovery and mitigation issues. The responsibilities of this Commission include:

- Meeting on a regular basis.
- Reporting to the Governor and other Idaho Department senior officials on the status of mitigation and recovery programs.
- Establishing short-term, multi-agency work groups to address specific problems such as post fire rehabilitation, watershed protection, landslides, and reduction of future flood damages.
- Assessing the impact of natural hazards on the State of Idaho's citizens, infrastructure and resources.
- Coordinating the myriad of agency programs and activities.
- Collectively identifying problems and developing recommendations for the Governor and Legislature for reducing or eliminating the impacts of natural disasters. These recommendations may include legislative solutions and the development of interagency policies and directives.

Executive Summary

On September 1, 2000, the President declared a major disaster in the State of Idaho due to wildfires. This disaster operation provided an opportunity to review the effectiveness of Interagency State and Federal long-term recovery operations.

The purpose of this report is to identify available program resources, raise critical issues that must be resolved, and provide recommendations. It is the product of the combined efforts the Federal, State and local agencies involved in disaster recovery.

In past disasters, Interagency Mitigation Teams have identified important recovery and damage reduction issues and developed recommendations. But because there has not been a cohesive process for taking action on these recommendations, many of these issues remain unresolved after four years.

Among the twenty-six recommendations made by the Team, five are critical. Action on these five recommendations is necessary for the full implementation of the rest. The Interagency Mitigation Team recommends that:

- The Governor appoint a State Interagency Mitigation Commission responsible for assessing the impact of natural hazards on the State of Idaho; Coordinate the myriad of agency programs and activities; Identify problems areas; Make recommendations to the Governor and Senior Department Officials.
- The Idaho Bureau of Disaster Services coordinate an immediate risk assessment of the principal watersheds affected by the recent fires in order to identify areas of vulnerability in the state, and provide a procedure for prioritizing these areas and mitigating a springtime runoff disaster.
- The recommended State Interagency Mitigation Commission address rehabilitation and wildfire prevention issues identified in the Department of Interior's Report to the President in Response to the Wildfires of 2000.
- A coordinated effort by the various State and Federal Agencies Involved in watershed protection and rehabilitation efforts be conducted. This effort will identify any short falls in programs or authorities for rehabilitating the burnt areas of Idaho.

A statewide comprehensive wildland fire education and outreach program be developed. This program would maximize the efforts of the various State and Federal Agencies. It should include the printing and distribution of educational materials, training local fire districts on developing their own wildland fire prevention programs, and developing demonstration projects that showcase

Description of Event

As of September 26, 2000 the National Interagency Fire Center reported that there have been 1,541 fires in the State of Idaho and 1,235,150 acres have burned. A pool of cold water in the Pacific has been affecting weather across the United States for the past two years. This weather pattern called, "La Nina," was at its strongest in the late winter/early spring of 2000. As a result of La Nina and its influence on weather patterns, drought conditions occurred. A combination of hot temperatures, low relative humidity, little or no precipitation and plenty of wind led to what some are calling the most serious wildland fire season in U.S. history.

A wildfire emergency of the magnitude experienced in the summer of 2000 is unique to disaster management. Understanding and identifying the social and economic effects is much more difficult than with earthquakes and floods. The full impact of these fires is still being assessed as this report is being prepared. Agencies at the State and Federal level, local governments and communities are working to begin the process of rehabilitation, economic recovery and prevention of future disasters due to environmental damage.

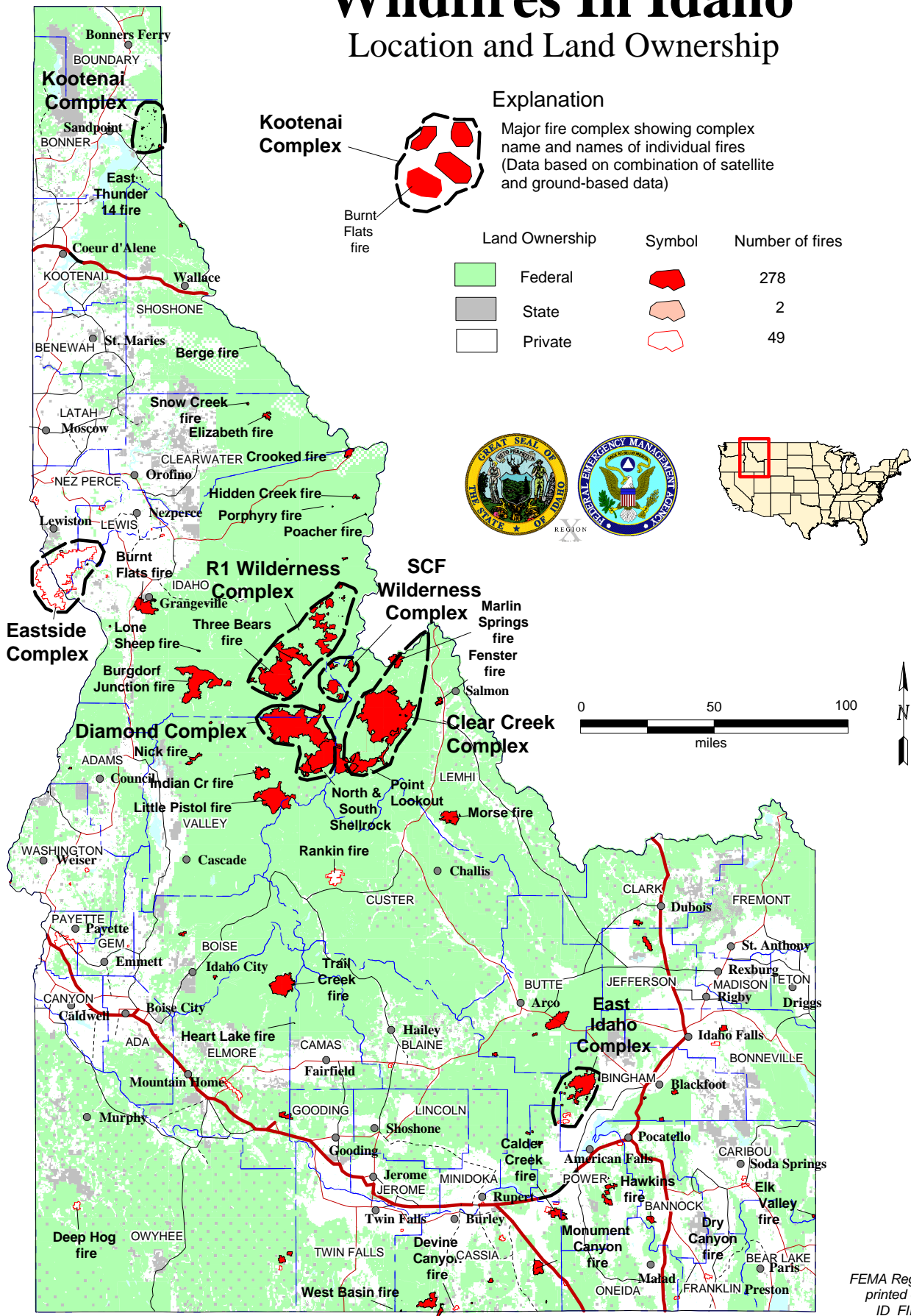
For populations in the interior West, the impacts of the fires of 2000 will be long lasting. The explosive wildfire situation brought a new awareness of fire to many people. Not only did the fires threaten Idaho's relatively isolated, small communities, it also threatened or affected larger towns and population centers such as Salmon, Idaho.

Smoke from the wildfires became a constant companion to residents. The smoke affected the health, recreation and daily life of many communities. Several times the Idaho Department of Environmental Quality issued air quality advisories to several communities in Idaho because of "very unhealthy" or "hazardous" air quality concerns. The town of Salmon requested air purification cleaners for their residents. Governor Kempthorne had room air cleaners and fans transported to Salmon on August 21, 2000.

There were restrictions on the use of campfires, smoking, use of chainsaws and other equipment. There were emergency closures of public and state lands to any activity. These closures affected approximately 3 million acres and had additional effects on those who work and recreate within the areas. Over 2,000 miles of trails, over 80 miles of river and almost all public airstrips were closed. Idaho has a population of people who live in the outdoors, having access to millions of acres of public lands. The closures and restrictions had an enormous effect on everyone. Many businesses that depend on the region's tourism in the summer and fall seasons have been seriously impacted economically. During the 26 days that the Salmon River in the Frank Church River of No Return Wilderness was closed to recreation, 4,000 outfitter floaters, 2300 private floaters and 140 commercial jet boaters who were scheduled to float the river were unable to take their trips. These lost trips resulted in a loss of personal income and employment for surrounding communities in Idaho. The closures also affected the

Wildfires In Idaho

Location and Land Ownership



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plans of about 600 hunters who had booked guided hunts in the wilderness area, not to mention the large number of resident hunters depending upon big game for their winter food supply. During the height of the land closures 150 businesses were unable to operate, resulting in losses of approximately 2.5 to 3 million dollars, according to the Idaho Outfitters and Guides Association Executive Director. These losses affect the service, retail trade and transportation sectors. Mining and logging industries have also been affected.

Public and firefighter safety was the number one priority of fire officials. There were 13 fires where evacuations occurred, 14-16 locations were evacuated including 2 small towns, 3 mining areas and many residences. There were only 7 serious injuries in Idaho. This is a significant success considering the number of people who were evacuated, the number of residents who assisted in initial attack by creating fire lines around their properties or fighting the fires, and the number of personnel on the fire lines.

The loss of crucial wildlife habitat, livestock grazing areas, stream contamination, erosion, the possibility of mudslides, flooding and contamination of town water supplies are all issues still to be faced. What happens afterwards often can be more catastrophic than the fire itself. Whole hillsides can turn into liquid, wiping out anything in its path, threatening communities and changing the ecological balance of the area for decades. Restoration and rehabilitation may take years to complete and even longer for the results to be visible.

The impacts on wildlife vary by the habitat and species. Large species may be displaced and move large distances to find unburned habitat. Some communities may experience an influx of wild animals causing some safety concerns. Small species aren't able to move as quickly or great distances and are more likely to be negatively impacted by fire. Fire modifies the size, composition, age and distribution of habitats important to wildlife. To what extent food sources and ground cover for protection have been impacted remains to be identified.

Recorded losses include 700 cattle lost on one ranch in Dietrich, Idaho. Many structures were lost or damaged. They include homes and business buildings, storage sheds and garages, fencing, bridges, signs, power lines, roads, hiking trails, and campground facilities. The damage resulted from fire, smoke and suppression efforts. There were 109 structures destroyed. 38 were primary (homes, cabins or trailers), 70 were outbuildings and 1 was a commercial building/business. There were a total of 9,568 structures threatened. 6,061 were primary, 1, 635 were outbuildings and 1,872 were commercial/business. The Idaho National Guard has been transporting potable water to the town of Atlanta because of damage to the town's water system.

National and international news coverage of the fire situation has left an image of Idaho as a vast burned area with nothing left to offer recreationists. This may discourage many of them from visiting Idaho. It's difficult to predict how long this perception may last. Wildfire can provide a significant recreational and educational experience. It is

natural to the ecosystems of Idaho and important to the long-term vegetative health. Action will need to be taken to address this issue of public perception so the economy won't suffer anymore than it already has.

The State of Idaho will be feeling the effects of the 2000 fire season for quite some time. The process of rehabilitation and recovery will require cooperation between the communities, tribes, local, state and federal agencies.

Mitigation Issues and Recommendations

These issues and recommendations were extracted from past Interagency Hazard Mitigation Team Reports for DR-1102-ID, 1996 Northern Idaho Floods; DR-1154-ID, 96/97 Heavy Snow, Landslides and Floods; the July 1997 Governor's Landslide Task Force Recommendations; and DR-1177-ID, 1997 Spring Floods.

This version of the combined Mitigation and long term recovery issues and recommendations should be viewed as a "work in progress" and is being prepared so the Idaho State Mitigation Commission has a framework for resolving these important issues.

Lead agencies are identified in this report as a mechanism for staffing an issue and reaching consensus on recommendations. The designation of "**Lead Agency**" does not necessarily dictate the responsibility for implementation of the recommendation or program. This Commission's activities and designations are not meant to change existing agency authorities.

All of these recommendations will require close interagency cooperation and comprehensive planning, and may require changes in legislation, rule revision, or amendment to codes for full implementation. The following recommendation can be used as a tool for Federal, State and local governments in developing options to reduce future damages.

A total of **26** recommendations are presented in the following eight categories:

- Rehabilitation and Mitigation Advisory Group
- Technical Assistance Issues
- Public Education Issues
- Watershed Issues
- Habitat Restoration Issues
- Mudslide, Landslide, Erosion, Debris Flow Issues
- Flood Issues
- Hazardous Materials Issues



Atlanta, Boise National Forest, by Carl Pence

Rehabilitation and Mitigation Advisory Groups

1. (DR-1341.1) Recommend that the Governor appoint a State Interagency Mitigation Commission Based on the Existing Joint Federal/State Interagency Hazard Mitigation Advisory Group.

Background: After each of the last three Presidential Declared Disasters, Idaho Bureau of Disaster Services, with assistance of the Federal Emergency Management Agency, has convened a Joint Federal/State Interagency Hazard Mitigation Team to advise the State on mitigation activities recommendations that would reduce future damages. By creating a more formal process, the State of Idaho can add a measure of continuity and accountability to its efforts to resolve long-term recovery and mitigation issues.

The State Interagency Mitigation Commission should meet on a regular basis and report to the Governor and other Idaho Department senior officials on the status and progress in resolving mitigation and recovery issues.

This Commission could also establish short-term multi agency work groups to address specific problems such as post fire rehabilitation, watershed protection, landslides, reducing future flood damages, etc. The Commission would be responsible for:

- Assessing the impact of natural hazards on Idaho citizens, its infrastructure, and State resources.
- Coordinating the myriad of agency programs and activities.
- Collectively identifying problems and developing recommendations to the Governor and Legislature for reducing or eliminating the impacts of natural disasters, to include possible legislative solutions, development of interagency policies, and directives to agencies for coordinated activities.

Action Recommendation: Request that the Governor appoint a State Interagency Mitigation Commission based on the existing Joint Federal/State Interagency Hazard Mitigation Team approach.

Lead Agencies:

Supporting Agencies:

State: Idaho Bureau of Disaster Services.

Federal: U.S. Bureau of Land Management; U.S. Forest Service; USDA/U.S. Farm Service Agency; USDA/Natural Resources Conservation Service; U.S. Corps of Engineers; U.S. National Park Service; U.S. Geological Survey; Federal Emergency Management Agency; U.S. Environmental Protection Agency; National Marine Fisheries Service and
State: Idaho Department of Lands; Idaho Department of Agriculture; Idaho Department of Water Resources; Idaho Geological Survey; Idaho Department of Environmental

Quality; Idaho Soil Conservation Commission; Idaho Transportation Department; Idaho Fish and Game; Idaho Department of Parks and Recreation; Idaho Department of Commerce; County Planning Associations; Idaho Department of Labor; Idaho Association of Counties; and County Emergency Manager Representative.

Other Federal, State, and local agencies to include the Governor's Office, Congressional Office Representatives, State Legislators, Idaho Cattleman's Association and Idaho Outfitters and Guides Association. Other citizens' groups are also invited to participate.

Estimated Cost: Use Existing Staff and Resources, No Cost.
Funding Sources: N/A
Schedule: Immediately

2. (DR-1341.2) Use the State Interagency Mitigation Commission to Address the Wildfires of 2000 as well as other Long Term Recovery and Mitigation Issues.

Background: President Clinton requested a report that recommends how best to respond to this year's severe fires, reduce the impacts of these wildland fires on rural communities, and ensure sufficient firefighting resources in the future. The President also asked for short-term actions that Federal agencies, in cooperation with States, local communities and Tribes, can take to reduce immediate hazards to communities in the wildland-urban interface and to ensure that land managers and firefighter personnel are prepared for extreme fire conditions in the future. This report identifies funding, grants, technical assistance and additional opportunities that are necessary for coordinating an integrated effort that assesses risks to homeowners and communities in Idaho. It also points to the need for the development of a strategic mitigation plan.

The State Interagency Mitigation Commission, or a subcommittee, should study other long-term recovery issues to include post fire rehabilitation, watershed protection, landslides and reduction of future flood damages.

Action Recommendation: Use of the State Interagency Mitigation Commission, or a Wildland Fire Subcommittee, to address mitigation of the risks of wildfires to rural communities in the Report to the President in Response to the Wildfires of 2000. Develop a strategic mitigation plan. This includes the development and application of a risk assessment processes across the state. These would:

- Apply uniform risk assessment criteria.
- Quantify mitigation alternatives (i.e. education, fuel management, fire protection, etc.).

- Coordinate assistance to communities.
- Document program accomplishments.
- Standardize education, media, informational programs and messages.

Lead Agencies: **State:** Idaho Bureau of Disaster Services; Idaho Department of Lands. **Federal:** U.S. Bureau of Land Management, and U.S. Forest Service.

Supporting Agencies: **Federal:** USDA/U.S. Farm Service Agency; USDA/Natural Resources Conservation Service; U.S. Corps of Engineers; U.S. National Park Service; U.S. Geological Survey; Federal Emergency Management Agency; U.S. Environmental Protection Agency; National Marine Fisheries Service, and **State:** Idaho Department of Agriculture; Idaho Department of Water Resources; Idaho Geological Survey; Idaho Department of Environmental Quality; Idaho Soil Conservation Commission; Idaho Transportation Department; Idaho Fish and Game; Idaho Department of Parks and Recreation; Idaho Department of Commerce; County Planning Associations; Idaho Department of Labor; Idaho Association of Counties; and County Emergency Manager Representative.

Other Federal, State, and local agencies to include the Governor's Office, Congressional Office Representatives, State Legislators, Idaho Cattleman's Association, and the Idaho Outfitters and Guides Association. Other citizens' groups are also invited to participate.

Estimated Cost: \$100,000 Per Year For Management Position, and Federally Appropriated Funds.

Funding Sources: U.S. Department of Interior and U.S. Forest Service.

Schedule: 1 month from Federally appropriated funds.

3. (DR-1341.3) Implement a Mechanism for the State Interagency Mitigation Commission to Track the Progress on these Recommendations.

Background: The State of Idaho has had three Presidential declared disasters in the last four years. Following each of these disasters, special working groups such as the Governor's Landslide Task Force have made recommendations. The State needs a mechanism for tracking the progress made at resolving these important issues.

Action Recommendation: The Idaho Bureau of Disaster Services has an existing database of previous Interagency Hazard Mitigation Team recommendations that can be updated and used by the State Interagency Mitigation Commission to track the progress on resolving these recommendations.

Lead Agencies:	State: Idaho Bureau of Disaster Services.
Supporting Agencies:	Federal: U.S. Bureau of Land Management, U.S. Forest Service, USDA/U.S. Farm Service Agency, USDA/Natural Resources Conservation Service, U.S. Corps of Engineers, U.S. National Park Service, U.S. Geological Survey, Federal Emergency Management Agency, U.S. Environmental Protection Agency, National Marine Fisheries Service, and. State: Idaho Department of Lands, Idaho Department of Agriculture, Idaho Department of Water Resources, Idaho Geological Survey, Idaho Department of Environmental Quality, Idaho Soil Conservation Commission, Idaho Transportation Department, Idaho Fish and Game, Idaho Department of Parks and Recreation, Idaho Department of Commerce, County Planning Associations; Idaho Department of Labor, Idaho Association of Counties, and County Emergency Manager Representative.
Estimated Cost:	Use Existing Staff and Resources, No Cost.
Funding Sources:	N/A
Schedule:	1 month from formalization of the State Interagency Mitigation Commission.

Technical Assistance Issues

4. (DR-1177.5) Provide Stream Bank Stabilization Technical Advice to Individual Property Owners.

Background: Many homeowners are at increased risk of flood damages. Roads are similarly affected by probable channel migrations during the next high water event and need to be protected.

Action Recommendation: Stabilizing existing stream banks and channels to reduce future flood damages. Stabilization of the channel must be done in such a way as to maximize both flood protection and fisheries habitat. The use of vegetative bank-protection works should be a priority in any stabilization project.

Lead Agencies:	State: Idaho Department of Water Resources and Federal: USDA/Natural Resources Conservation Service.
Support Agencies:	Federal: U.S. Army Corps of Engineers. State: Idaho Soil Conservation Commission, Idaho Department of Environmental Quality, and local Soil Conservation Districts
Estimated Cost:	Unknown
Funding Sources:	USDA Natural Resources Conservation Service and Idaho Department of Water Resources existing programs.
Schedule:	Immediately

5. (DR-1341.4) Assessment of Risks due to Potential Landslide, Mudslide and Debris Flows.

Background: An immediate study of the principal watersheds affected by the recent fires is required to evaluate the potential for flood and debris flow hazards in the area burned by wildfires. The potential for severe flooding and debris flow in the areas affected by wildfires needs to be evaluated on a real-time basis. Post-fire floods and debris flows are hazardous because they can occur with little warning, exert unpredictable loads on objects in their paths, strip vegetation, block drainage ways, damage structures and endanger humans. This study will be use existing GIS data base information such as the USGS Basin Characteristics File to identify the relative hazard posed by damaging flooding and debris flow from individual burned drainage basins, as well as the threats to human life and property posed by these hazards.

Action Recommendation: Identify the potential hazards from burned drainage areas. This information is necessary for effective and appropriate mitigation decision making. It will also aid emergency personnel and citizens in their decisions about evacuation timing and routes.

Lead Agencies: **Federal:** U.S. Geological Survey and U.S. Army Corps of Engineers.

Supporting Agencies: **Federal:** U.S. Forest Service, Bureau of Land Management, USDA Natural Resource Conservation Service.

Estimated Cost: \$67,000

Funding Sources: State of Idaho and U.S. Army Corps of Engineers.

Schedule: Three weeks from date of contract.



Atlanta, Boise National Forest, By William Barber

Public Education Issues

6. (DR-1154.9 & Governor's Landslide Task Force Recommendations #9) Develop a Comprehensive Landslide/Debris Flow Awareness Campaign.

Background: Increased awareness of the landslide hazard will lead to probable mitigation of the hazard.

Action Recommendation: Distribute information to occupants of hazard zones describing mitigation measures that can be undertaken by individual home, farm or business owners. Prepare and distribute information concerning the nature of alluvial fan hazards (i.e. apex, braided zone, sheet flow) to property owners and agencies regulating development. Share hazard and warning information with the media and schools to promote awareness by children and parents. Contact groups who would benefit from better warnings, such as snowmobile groups exposed to avalanche hazards.

Lead Agency: State: Idaho Bureau of Disaster Services.

Support Agencies: State: Idaho Geological Survey, Idaho Transportation Department, Idaho Department of Water Resources,
Federal: U.S. Forest Service, U.S. Geologic Survey, USDA/National Resource Conservation Service, and U.S. National Weather Service.

Estimated Cost: Unknown

Funding: Unknown

Schedule: 3 months - 12 months

7. (DR-1341.5) Develop a State of Idaho Wildland Fire Prevention and Public Education/Outreach Program.

Background: The existing authorities within the Idaho Department of Lands could be used to fund a Wildland Fire Educator. This educator would standardize and focus wildland/urban interface and wildland fire ecology education efforts for maximum results and long term effects. An example would be to design one wildland fire educational campaign that meets the needs of the State of Idaho.

Action Recommendation: Develop a comprehensive wildland fire education and outreach program. This includes:

- Distribution of educational materials.
- Employment of an education/outreach specialist to develop a program and outreach to community and neighborhood groups throughout the state, creating

awareness about wildland fire safety, the fire ecosystem, and wildland fire management.

Lead Agency: **State:** Idaho Bureau of Disaster Services
Supporting Agencies: **State:** Idaho Department of Lands, **Federal:** U.S. Bureau of Land Management, and U.S. Forest Service.

Estimated Cost: \$100,000 Per Year, for a 2 Year Period.
Funding Sources: Federal Hazard Mitigation Grant Program Funds, U.S. Department of Interior, and possibly USDA Natural Resources Conservation Service, Resource Conservation and Development Program.

Schedule: Immediately

8. (DR-1341.6) Produce and Distribute Fire Ecology Education and Educational Materials.
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Background: The State of Idaho currently lacks fire ecology education materials. A large percentage of the general public, to include recreational travelers, tourists, industry professionals are uninformed about the role of fire in the ecology of the state.

Action Recommendation: Develop, implement and disseminate fire ecology education information (video, workbooks, flyers, etc.). The education information should include material explaining the role of fire in various ecosystems (especially the canyon country of the Frank Church Wilderness), basics of fire prediction, fire modeling, fire fighting, fire rehabilitation, why and how fuels burn, fire intensity, and how fires are managed.

Lead Agencies: **Federal:** U.S. Department of Agriculture, U.S. Forest Service and U.S. Bureau of Land Management.
Supporting Agencies: **State:** None Specified

Estimated Cost: \$15,000 - \$100,000
Funding Sources: U.S. Department of Agriculture, and U.S. Forest Service.
Schedule: 1 month – 12 months

Watershed Issues

9. (DR-1341.7) Adverse Effects of Increased Watershed Run-Off.

Background: Fire damaged soils on steep slopes will increase the sediment loads to streams and rivers. Stabilization and restoration of the riparian areas are critical to maintaining water quality in severely burned watersheds.

Action Recommendation: The coordination and long-term involvement of State agencies in the USFS's Burnt Area Emergency Response Plan (BAER), as well as in BLM's Rehabilitation Plans, are a necessary part of this recommendation.

- This effort included the securing of funding to conduct assessments and complete on-the-ground work. Programs include the implementation of Best Management Practices, stabilization, re-vegetation (planting) and other actions that protect water quality on both private and public lands.
- Rehabilitation plans on Federal lands must include mitigation measures to reduce erosion of adjacent and downstream private lands. Where needed, mitigation measures should extend onto private lands

Lead Agencies: **State:** Idaho Department of Lands, Idaho Soil Conservation Commission, and **Federal:** USDA Natural Resource Conservation Service.

Supporting Agencies: **State:** Idaho Bureau of Disaster Services, Department of Environmental Quality, local Water Conservation Districts and **Federal:** U.S. Bureau of Land Management, U.S. Forest Service, and U.S. Geological Survey.

Estimated Cost: Unknown

Funding Source: State Water Quality Programs; U.S. Department of Agriculture Programs (Small Watershed Assistance. Environmental Quality Incentive Program, Emergency Watershed Program), and U.S. Fish and Wildlife Service, as well as additional Federal Appropriations.

Schedule: To be determined

10. (DR-1341.8) Expanding Turbidity and Water Quality Monitoring Systems.

Background: There is a need to monitor increased turbidity and other water quality parameter rates in watersheds that were burned in order to assess the severity of impacts on fisheries and to evaluate the effectiveness of mitigation efforts. Existing stream gauging stations can be instrumented with turbidity and other water quality sensors for a relatively low cost and placed at many existing sites. This data can be telemetered by satellite for real-time access to the data.

Action Recommendation: Secure funding to purchase turbidity and other water quality sensors, determine appropriate stream gaging site locations for setup, install turbidity and other water quality sensors and sustain basic operation and maintenance.

Lead Agencies: **State:** Idaho Department of Water Resources and **Federal:** U.S. Geological Survey.

Supporting Agencies: **Federal:** U.S. Environmental Protection Agency, **State:** Idaho Department of Environment Quality, and Idaho Department of Fish and Game

Estimated Cost: \$5,000 - \$10,000 per unit per site and \$2,000 per year for maintenance.

Funding Source: Bureau of Land Management, Federal Emergency Funds
Schedule: 3 to 6 month for initial installations.



Atlanta, Boise National Forest, by Carl Pence

11. (DR-1341.9) Watershed Modeling of Areas Highly Impacted by Wildfires.

Background: Many of the watersheds that were burned will experience significant long-term changes in hydrology over the next few years due to burned vegetation and soils. These changes will impact the timing and magnitude of peak stream flows, and the potential for debris flow and landslides in these watersheds. Development of a watershed model for significantly impacted areas would provide a tool to predict the severity of these impacts and allow mitigation scenarios to be pre-evaluated for their effectiveness.

Action Recommendation: Secure funding, determine and prioritize watersheds for modeling, create watershed model, evaluate critical scenarios based on model results and develop the most effective mitigation measures.

Lead Agencies:	Federal: U.S. Geological Survey and State: Idaho Department of Lands.
Supporting Agencies:	Federal: Bureau of Land Management, and U.S Forest Service, USDA Natural Resource Conservation Service (Snow Survey Program), and State: Idaho Department of Water Resources, University of Idaho, Boise State University.
Estimated Cost:	\$50,000 minimum.
Funding Source:	U.S. Geological Survey, Bureau of Land Management, U.S. Forest Service, Federal Emergency Funds
Schedule:	5 months – 2 years

12. (DR-1341.10) Rehabilitation of State Endowment Lands.

Background: State endowment lands sustained damages due to fire control actions taken by Idaho Department of Land.

Action Recommendation: Develop rehabilitation plans and requirements in coordination with surrounding Federal rehabilitation plans in order to affect the maximum value to State lands.

Lead Agency:	State: Idaho Department of Land
Supporting Agencies:	None Identified
Estimated Cost:	Unknown
Funding Source:	Unknown
Schedule:	To be Determined

13. (DR-1102.1) Reduction of Channel Capacity

Background: Increased runoff and erosion following a fire can result in increased bedload and debris delivered to stream channels. One common result of excessive bedload sediment is the reduction of channel capacity downstream, which can cause increased frequency and severity of flooding downstream. Generally, the greatest source of sediment in the forested watershed is from roads and landslides. By identifying and treating the upstream sediment sources (drainage problems on roads such as failed culverts and landslides) impacts can be lessened.

Action Recommendation: Fund additional inspectors at Idaho Department of Lands for forestland and at Idaho Department of Water Resources for non-forest land. Apply the same stream crossing standards (Idaho Department of Water Resources has standards adopted under the Stream Channel Protection Act) to non-forest roads, not covered by the Forest Practices Act. Encourage landowners to remove culverts and stabilize abandoned roads. Fund road condition surveys on National Forest lands. Fully fund road maintenance programs on National Forest lands. Implement watershed restoration programs that will eliminate roads at high risk of failure and/or no longer needed for the forest transportation system.

Lead Agencies: **State:** Idaho Department of Water Resources and Idaho Department of Lands.

Supporting Agencies: None Identified

Estimated Cost: Unknown

Funding Source: State of Idaho

Schedule: To be Determined

Habitat Restoration Issues

14. (DR-1102.2) Stream Clearance and Maintenance

Background: Increased runoff and recently downed trees in burned areas can greatly increase the amount of large woody debris in stream channels. A lack of stream clearance and maintenance is a major cause of flood damage. This is a priority issue that should be a priority coordinated at all levels of government. Downed trees, sediment deposits and other debris in stream and river channels can restrict the flow of water and increase the severity of flooding. Bridges, openings and culverts must be periodically inspected and routinely cleaned. Normal debris, in the water but not restricting bridge or culvert openings, should be left as is. Such debris provides for fish habitat and stream stabilization.

Actions Recommendation: Move or remove in-channel debris only where it directly threatens essential structures. Relocation of debris to "safe" locations or securing debris masses within the channel to maintain fish habitat is preferred over complete removal. Continue working with counties to establish clearance and maintenance procedures for road systems. Use Best Management Practices and expand landowner awareness for implementing agricultural, mining and forest practices. Identify sponsors for stream debris removal and emergency maintenance measures. Coordinate work with the appropriate agencies before implementing clearance measures.

- Coordination with Federal and State agencies to develop a State policy on debris removal that is compatible with both floodplain management and fish habitat restoration efforts.

Lead Agencies:	Federal: U.S. Forest Service. Bureau of Land Management, State: Idaho Department of Water Resources and Idaho Fish and Game
Support Agencies:	State: Idaho Transportation Department, Idaho Department of Lands, counties, Agency cities and private landowners
Estimated Cost:	Unknown
Funding Source:	Army Corps of Engineers (Sect 208). Natural Resource Conservation Service (Emergency Watershed Protection)
Schedule:	6-12 months

15. (DR-1341.11) Offsite/Indirect Grazing Impacts on Riparian and Pasture Areas.

Background: Grazing allotments destroyed by the recent fire will force excessive grazing pressure on private lands. This increase in grazing will impact critical riparian habitat for threatened and endangered species and overall water quality.

Action Recommendation: Secure additional funding through USDA Natural Resources Conservation Service and Idaho Soil Conservation Commission to implement conservation practices on these burnt pastures with increased Animal Unit Months and duration. Additional funding is needed for fencing, water sources and technical assistance.

Lead Agency: **State:** Idaho Soil Conservation Commission.
Supporting Agencies: None Identified

Estimated Cost: Unknown
Funding Source: Unknown
Schedule: To be Determined



Animal Skeleton, Boise National Forest, by Carl Pence

16. (DR-1341.12) Sage Grouse Habitat Restoration/Rehabilitation and Checking the Spread of Annual Grasses.

Background: Sage grouse numbers have declined dramatically in the last decade. Much of this decline can be attributed directly to the conversion of perennial bunch-grass and shrubs range into annual grass. Recurrent fires only enhance the invasion and spread of these annuals.

Action Recommendation: Restore sage grouse habitat by working to reestablish sagebrush communities, including other native plant species. Green stripping with fire-resistant species will help create “living fire breaks” that protect restored sites and existing sagebrush stands.

Lead Agency: **Federal:** U.S. Bureau of Land Management
Supporting Agencies: None Identified

Estimated Cost: Unknown
Funding Source: Unknown
Schedule: To be Determined

17. (DR-1341.13) Program to Deal with Post-Fire Noxious Weeds.

Background: There is an invasion or continued spread of noxious weeds into disturbed areas. These areas can be disturbed due to fire, control lines, fire camps, and associated road repairs, upgrades or new construction.

Action Recommendation: Identify areas of noxious weeds, map and record these areas, and control the noxious weeds. Control of the noxious weeds must include immediate control action as well as long term (five years).

Lead Agencies: **State:** Idaho Department of Agriculture and County Weed Control Agents.
Supporting Agencies: None Identified

Estimated Cost: Unknown
Funding Source: Unknown
Schedule: To be Determined

18. (DR-1341.14) Post Fire Increases in Grasshopper Populations.

Background: Where rangeland has been burnt over, new growth will be highly susceptible to insect infestation. Initially, the grasshopper population will be greatly reduced as a direct result of the fire. However, there is a strong likelihood that grasshoppers will reappear in greater numbers because of decreased predation and competition. This increase in numbers will take place at a time when new grass growth is at its most vulnerable stage.

Action Recommendation: Agencies with responsibility for rangeland rehabilitation need to investigate this situation and develop appropriate mitigation measures.

Lead Agencies: **Federal:** U.S. Bureau of Land Management and **State:** Idaho Department of Agriculture

Supporting Agencies: None Identified

Estimated Cost: Unknown

Funding Source: Unknown

Schedule: To be Determined

Mudslide, Landslide, Erosion, and Debris Flow Issues

19. (DR-1102.2) Minimum Standards for Culverts

Background: Minimum design standards for culverts exist under the Forest Practice Act using a 50-year event. A range between the 50 and 100-year flood event may be the best solution. Culvert design standards should encompass the Idaho Code 36-906 to ensure culverts do not impede fish passage. Undersized and blocked culverts can lead to washed out roads, parking lots and other damage.

Actions Recommendation: Develop and enforce statewide uniform design standards for culvert construction. Intermittent streams should use same standards. Disseminate information or agency guidance for culvert design/placement criteria.

Lead Agencies: **State:** Idaho Department of Water Resources, Idaho Fish and Game, Idaho Transportation Department and local highway and street departments

Supporting Agencies: Local Highway Technical Assistance Council.

Estimated Cost: Unknown

Funding Source: Idaho Department of Water Resources, Idaho Transportation Department and local government departments

Schedule: To be Determined

20. (DR-1102.4) Stabilization of Disturbed Slopes

Background: Stabilization of disturbed reaches can play an important role in controlling flood damage. In some severely burned stream reaches and continuous slopes, increased runoff will result in highly unstable channels. Headcutting, channel migration and increased velocity can lead to the downstream migration of gravel which then is deposited in lower velocity areas. This is of particular concern above bridges and areas where the channel is leveed adjacent to residences and roads. All stabilization work must be in accordance with adopted rules for stream channel alterations.

Actions Recommendation: Identify suitable and highly unstable stream reaches as part of an overall plan of action to reduce flood hazards with appropriate measures, including the following:

- Implement stream channel and burned slope rehabilitation projects using techniques, which are accepted and appropriate from the standpoint of vegetating slopes stabilizing the channel, maximizing floodplain function and maintaining or restoring beneficial uses including fisheries habitat.
- Use sediment bed load traps if deemed appropriate and maintain traps to function during high flow events.

- Identify and implement headwater and floodplain restoration projects to ensure success of downstream projects.

Lead Agencies: **State:** Idaho Department of Water Resources. **Federal:** U.S. Army Corps of Engineers, and USDA Natural Resource Conservation Service.

Support Agency: **State:** Idaho Soil Conservation Commission, Idaho Department of Fish and Game, counties, cities and other appropriate land management agencies.

Estimated Cost: Unknown

Funding Source: State legislature. Federal agencies

Schedule: 1 to 5 years

21. (DR-1102.5) Gravel Erosion and Deposition

Background: Several tributary drainages experienced large volumes of gravel deposition in their lower reaches, particularly on the alluvial fans. The gravel erosion/deposition phenomenon is dynamic and may, over a long period of time, tend to increase the height and breadth of the fans. Proper land management will address frequency and flows, vegetation, erosion, and reduce the need for short-term solutions following flooding. While some of these areas appear to be desirable for development and transportation infrastructure, they are susceptible to significant damage.

Actions Recommendation: Evaluate and select long-term measures to correct flood damages as part of the flood recovery effort, such as excavating gravel deposits, raising bridges and roadways, relocation of structures, and zoning changes. Realign roads/infrastructure to avoid alluvial fans where feasible. Study long-term trends and dynamic aspects of alluvial fans to ensure that problem areas are not developed or aggravated. Address upstream sources of bedload that are increasing the instability of alluvial areas, and initiate watershed restoration projects. Include funding for studies to analyze and recommend specific flood measures.

Lead Agencies: **State:** Idaho Department of Water Resources **Federal:** U.S. Army Corps of Engineers, and U.S. Geological Survey.

Support Agencies: **State:** Idaho Geological Survey, Idaho Department of Transportation Department, and Idaho Association of Counties.

Estimated Cost: Unknown

Funding Source: U.S. Army Corps of Engineers, U.S. Geological Survey, Idaho Geological Survey and Idaho Department of Transportation.

Schedule: Initiate in 6 months, implement in 3 years

22. (DR-1154.10) Develop/Enhance Warning Systems for Landslides.

Background: Many communities are at risk from increased flooding, landslides, and debris flows. There is need for enhanced local warning systems, particularly in isolated communities.

Action Recommendation: Review and devise warning systems for geo-technical events, including the prediction of rain or snow events that could trigger an event. (A landslide rating system akin to the U.S. Forest Service, “low, medium, high” forest fire danger warnings, might be suitable). Work with local communities to develop “networks” for disaster warning and assistance, including identification of a lead person to coordinate network, evacuation and access choices. Conduct a safety review of communication and utilities infrastructure and facilities. Work to conduct mitigation projects and upgrades as required.

Lead Agency:	State: Bureau of Disaster Services
Support Agencies:	Federal: U.S. Geological Survey, USDA Natural Resources Conservation Service, U.S. Forest Service, and U.S. National Weather Service, and State: Idaho Geological Survey,
Estimated Cost:	Unknown
Funding Source:	Unknown
Schedule:	To be Determined

23. (DR-1154.11, & Governor’s Landslide Task Force Recommendation #6) Create an Interdisciplinary Landslide Rapid Response Team.

Background: There is a need for a rapid response team with inter-disciplinary backgrounds to immediately assess risk and to advise local officials and citizens. Team members should be prepared in advance to expedite permit requirements for clearing and repair operations.

Action Recommendation: Create interdisciplinary landslide rapid response team of assemble subject matter experts and provide training.

Lead Agency:	State: Idaho Bureau of Disaster Services
Support Agencies:	State: Idaho Department of Transportation; Idaho Department of Water Resources; Idaho Department of Fish and Game; Idaho Department of Environmental Quality; and Idaho Geological Survey. Federal: U.S. Forest Service; USDA Natural Resources Conservation Service; U.S. Federal Highway Administration; U.S. Army Corps of

Engineers; U.S. Geological Survey; U.S. Bureau of Land Management; and professional expertise as necessary.

Estimated Cost: Unknown
Funding Source: Unknown
Schedule: To be Determined

24. (DR-1341.15) Find Ways to Enhance Highway District and County Secondary Road Drainage Systems

Background: Secondary country and highway district roads are at much greater risk from damages caused by increased drainage and debris after a wildland fire. Secondary roadway drainage systems are notoriously under-maintained and plagued by deferred maintenance. The situation is compounded for unimproved gravel or mountainous roads. It is very common for culverts and other drainage structures to be “blown out “ because of gravel or debris blocking water passages. Clearing and clearing of roadway drainage systems can greatly reduce damage to roads, erosion of roadbeds, undercutting of bridges and other structures, and loss of emergency access for rural communities.

Action Recommendation: Drainage structures will, in some cases, have to be modified to accommodate the increased drainage.

Lead Agency: Idaho Department of Transportation.
Supporting Agencies: Idaho Association of Counties.

Estimated Cost: Unknown
Funding Source: Unknown
Schedule: To be Determined

Flood Issues

25. (DR-1102.17) Expanding Flood Monitoring and Warning Systems

Background: Long-term hydrologic data are a critical element for developing floodplain management strategies. For example, the data is necessary to accurately delineate floodplains for the design of structures such as roads, bridges, and levees. This data, if available on a real time basis, can be invaluable to emergency response agencies during the actual flood event. An example would be providing accurate public information to citizens, businesses and other agencies.

Actions Recommendation: Evaluate existing hydrologic monitoring networks to determine their adequacy for floodplain management. This includes expanding monitoring networks in areas where hydrologic data is unavailable or limited, and finding ways to integrate information from different systems.

Lead Agencies: **Federal:** U.S. National Weather Service, **State:** Idaho Department of Water Resources

Supporting Agencies: **Federal:** U.S. Geological Survey, U.S. Army Corps of Engineers, and USDA Natural Resource Conservation Service (snow survey), U.S. Forest Service, and U.S. Bureau of Land Management, **State:** Idaho Bureau of Disaster Services, and Idaho Geological Survey.

Estimated Cost: Unknown

Funding Source: United States Geological Survey, Federal Emergency Management Agency, Idaho Department of Water Resources, Army Corps of Engineers, National Weather Service, Natural Resource Conservation Service, local governments and tribes

Schedule: Begin evaluation within 3 months; expand as funds are identified

*****THE STATE INTERAGENCY MITIGATION COMMISSION WILL REEVALUATE OTHER FLOOD ISSUE RECOMMENDATIONS DEVELOPED DURING EARILIER DISASTERS FOR INCLUSION IN THIS NEW PROCESS AT THE EARILEST POSSIBLE DATE*****

Hazardous Materials Issues

26. (DR-1341.16) Mobilization of Hazardous Wastes and Mine Tailings

Background: Community drinking water sources are at risk of contamination from denuded watersheds. Runoff and surface water scouring will result in the delivery of fine sediments, along with contaminated materials from old mining sites and waste dumps, into community drinking water sources.

Action Recommendation: Provide for short and long term stabilization of hazardous wastes and mine tailings. Develop recycling projects, and, ultimately, disposal projects. Also address non-point pollution source situations with short and long-term stabilization and restoration remedies. Evaluate municipal drinking water supplies and wastewater treatment systems. Rehabilitate, repair damages, or upgrade to handle future runoff conditions where required.

Lead Agencies: **State:** Idaho Department of Environmental Quality and

Federal: U.S. Environmental Protection Agency

Supporting Agencies: None Identified

Estimated Cost: Unknown

Funding Source: Unknown

Schedule: To be Determined

Program Resources

The following is a comprehensive list of existing programs identified by the Interagency Wildland Rehabilitation and Hazard Mitigation Team that affected communities may employ in this disaster recovery process. Funding availability for many of these programs is specific to disaster event and designated areas. Congress appropriates emergency disaster funding for many of these programs, based on the need identified. Some of the following programs are funded and some are not. For the most up to date information on funding availability, contact the lead agency identified for each program.



Fire in Salmon, ID, by U.S. Forest Service

1. Flood Control and Coastal Emergencies Program

Program Description: This program provides flood emergency operations, advance measures, emergency water assistance. The U.S. Army Corps of Engineers has not received any requests for assistance to date.

Lead Agency: U.S. Army Corps of Engineer
Type of Assistance: Technical Assistance, Direct Federal Assistance
Amount of Funding Available: Federal Emergency Funded Program

2. Managing the Impact of Wildfires on Communities and the Environment Program

Program Description: Based on President Clinton's request, this program will increase federal wildland firefighting resources (i.e. firefighting crews, aircrafts, etc.). As well, the program will provide a large money investment for urban/wildland mitigation and prevention for homeowners and communities through:

- implementation of locally led coordinated efforts through the establishment of integrated fuels treatment teams at the regional and local level; and
- completion of assessments and the development and implementation of strategic plans that reduce wildland fire risks to communities (structures, watersheds, ecosystems, economies, etc.) through educational mitigation and fuels management issues.

Lead Agency: U.S. Department of Agriculture, U.S. Department of Interior – Bureau of Land Management, U.S. Forest Service

Type of Assistance: Technical Assistance

Amount of Funding Available: Undetermined at this point, potentially 100's of millions of dollars nationally and 10's of millions of dollars for States

3. Northwest Watershed Research Center

Program Description: Research on water quality and water supply. Also post-fire re-vegetation and fire effects on soil erosion.

Lead Agency: U.S. Department of Agriculture - Agriculture Research Service

Type of Assistance: Grant, Base Funds

Amount of Funding Available: \$100,000 Yearly Grant, \$300,000 Yearly Base Funds

4. Emergency Grazing and Haying of Conservation Reserve Program Enrolled Land

Program Description: This is a new program authorized by Farm Service Agency June 2000. Ten counties are approved and have grazed cattle on Conservation Reserve Program land since the beginning of July 2000. The U.S. Department of Agriculture has approved an extension of the grazing portion of this program through November 30, 2000 for approved counties. Currently, no additional federal funding is necessary for this program.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency
Type of Assistance: Cost-Share, Loan
Amount of Funding Available: None Specified, Funds Appropriated by Congress

5. Livestock Assistance Program

Program Description: This program provides assistance for grazing losses due to natural disasters for eligible producers in approved counties. To be approved a county must have suffered a 40 percent or greater loss of available grazing for at least 3 consecutive months as a result of damage due to drought, hot weather, disease, insect infestation, flood, fire hurricane, earthquake, severe storms, or other disasters. In Idaho, this is especially necessary because the national land management agencies are requiring livestock producers to take cattle and sheep off the public range up to eighty days earlier than in past years. Further, both the Bureau of Land Management and Forest Service may prohibit grazing on burned land for the next three years or more, depending on local recovery conditions.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency
Type of Assistance: Grants
Amount of Funding Available: FY 2000 -\$5 million; FY 2001-2003 - \$2.5 million

6. Livestock Indemnity Program

Program Description: This program provides partial reimbursements to eligible producers who suffered losses of livestock because of disaster situations such as fire.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency
Type of Assistance: Cost-Share, Grant
Amount of Funding Available: \$2,000,000

7. Tree Loss Assistance Program

Program Description: This new program has been available in the past to replant trees due to losses from natural disasters. Private forest operators in Idaho have lost considerable timber because of fire. There is a need for an additional estimated amount of \$1,500,000.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency

Type of Assistance: Cost-Share, Loan
Amount of Funding Available: None Specified

8. Snow Survey and Water Supply Forecasting

Program Description: This program monitors western snow pack and precipitation and prepares forecasting for runoff and stream-flow use in water supply issues like flooding, irrigation needs, municipal storage needs. "Early Warning," disaster preparedness issues, needs this part of the data. The fires impacted, damaged or removed many of the SNOTEL sites, also known as data collection sites. There is a budgeting need to fix, replace and re-install these SNOTEL sites. There is a need for an additional \$520,000 in Idaho.

Lead Agency: U.S. Department of Agriculture – Natural Resources Conservation Service
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified

9. Forestry Incentives Program

Program Description: This program is a cost-share program to assist private timber and woodlot owners plant and replant trees. This program can be used to replant trees on private lands affected by fire. There are no funds available right now, however through supplemental funding there is a need for approximately \$200,000.

Lead Agency: U.S. Department of Agriculture - Natural Resources Conservation Service
Type of Assistance: Cost Share, Technical Assistance
Amount of Funding Available: None Specified, Needs Are Supplemented Through Appropriations

10. Resource Conservation and Development Program

Program Description: Resource Conservation and Development is a non-profit organization with U.S. Department of Agriculture authorization to assist local communities to implement projects through meeting organization, development, networking, and seeking the financial and technical assistance needed. Projects include natural resources, human resources, economic, etc. affecting the quality of life. Nine Resource Conservation and Development areas in the State of Idaho are providing assistance to all areas within the State. Resource Conservation and Development also administers grants for projects. Fire prevention in the wildland interface is a program

that Resource Conservation and Development council is interested in delivering to local communities and fire control organizations. The Resource Conservation and Development can work directly with local communities to improve preparedness of fire districts and provide preparedness information.

Lead Agency: U.S. Department of Agriculture - Natural Resources Conservation Service
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified

11. Emergency Loan Program

Program Description: Farm Service Agency provides low interest rate Emergency Loans to help cover production and physical losses in counties declared as disaster areas by the President and the Secretary of Agriculture. For physically losses only, the Farm Service Agency Administrator may authorize Emergency Loan assistance.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency
Type of Assistance: Loan
Amount of Funding Available: Maximum \$500,000



Atlanta Power Plant and Dam By US Forest Service

12. Emergency Conservation Program

Program Description: The Emergency Conservation Program provides emergency funding for farmers and ranchers to rehabilitate farmland damaged by wind erosion, floods, hurricanes, fires, or other natural disasters, and for carrying out emergency water conservation measures during period of severe drought. The Emergency Conservation Program has several drought practices that will help livestock producers recover from fire and drought conditions. These cost-share programs include: fencing, livestock watering facilities, pipelines, wells, springs and reestablishing of permanent cover where destroyed by fire lines and lanes. The agency anticipates further funding requests for \$5,000,000 to \$10,000,000.

Lead Agency: U.S. Department of Agriculture - Farm Service Agency
Type of Assistance: Cost-Share
Amount of Funding Available: Funds Appropriated By Congress

13. Emergency Watershed Program

Program Description: The program helps protect lives and property threatened by natural disasters such as floods, hurricanes, tornadoes, and wildfires. Natural Resource Conservation Service provides this assistance to preserve life and property threatened by excessive erosion and flooding. Funding received can be use for such work as clearing debris from clogged waterways, temporary water and erosion control structures, restoring vegetation, and stabilizing riverbanks. Measures taken must be environmentally, socially, and economically sound. There is a need for an additional \$12,000,000.

Lead Agency: U.S. Department of Agriculture - Natural Resources Conservation Service
Type of Assistance: Cost-Share, Technical Assistance
Amount of Funding Available: None Specified

14. Environmental Quality Incentive Program

Program Description: Technical assistance and cost-share funding available to private landowners and agricultural producers for installation of conservation practices to address natural resource concerns in locally determined priority areas. Typically, designated concerns include:

- Water quality (sediment, nutrients, pesticides),
- Riparian stability (channel vegetation, channel stabilization), and

- Reseeding and re-vegetating private and tribal lands (agricultural) and to install erosion prevention/reduction and sediment reduction measures.

Idaho Natural Resources Conservation Service has asked for an additional \$2,000,000, as there is a need for private lands affected by these fires.

Lead Agency: U.S. Department of Agriculture - Natural Resources Conservation Service, Idaho Natural Resources Conservation Service
Type of Assistance: Cost-Share, Technical Assistance
Amount of Funding Available: None Specified

15. Public Law - 566 Small Watershed Assistance Program

Program Description: Long-term watershed analysis/restoration program on private and tribal agricultural lands (i.e. crops, pastures, hay, ranges, forest, etc.). Requirements include preparation of a watershed plan that provides a basis for the funding request from Best Management Practices implementation. The agency has allocated the funds for fiscal year 2000 and funds for fiscal year 2001 are unknown at this time.

Lead Agency: U.S. Department of Agriculture - Natural Resources Conservation Service
Type of Assistance: Cost-Share, Technical Assistance
Amount of Funding Available: None Specified

16. Noxious Weed Control Program

Program Description: Identify sources of native seed for reseeding to control noxious weeds.

Lead Agency: Idaho State Department of Agriculture
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified

17. Community Development Block Grant and Disaster Relief Initiative

Program Description: Congress appropriated funding programs to rebuild the affected areas and bring crucial seed money to start the recovery process. These programs can fund a broader range of recovery activities than most programs and the Disaster Relief Initiative helps communities and neighborhoods that otherwise might not recover due to limited resources. The Disaster Relief Initiative supplements programs of FEMA, the U.S. Small Business Administration and the U.S. Army Corps of Engineers. Examples of eligible activities include:

- Relocation payments for people and businesses dislocated by the disaster
- Debris removal
- Rehabilitation of homes and buildings damaged by the disaster
- Buying, constructing, or rehabilitating public facilities such as water and sewer systems, streets, neighborhood centers, and government buildings
- Code enforcement
- Public services
- Planning and administrative costs

Eligible use of Community Development and Block Grant funds include:

- Clearance of debris
- Demolition, clearance and/or reconstruction of damaged property posing an immediate threat to public safety
- Emergency reconstruction of essential water, sewer, electrical and telephone facilities
- Providing a variety of relief services to individuals and businesses owners
- Matching FEMA or other aid programs

The U.S. Department of Housing and Urban Development Finance Committee has discussed requesting \$1,000,000 for Disaster Relief Initiative and \$5,000,000 for Community Development and Block Grant.

Lead Agency: Idaho Department of Commerce (U.S. Department of Housing and Urban Development)
Type of Assistance: Grant
Amount of Funding Available: None Specified

18. Water Quality, Emergency Removal (Super-Fund) and Drinking Water Protection Program

Program Description: The U.S. Environmental Protection Agency is a major funding source for Idaho's environmental protection programs, and much of these resources are provided to Idaho's Department of Environmental Quality. Three potentially helpful programs are:

- Clean Water Act §319 funds non-point source pollution efforts such as riparian restoration and Best Management Practices (an additional \$500,000 needed),
- Emergency Removal under Super-Fund can quickly attack and fix threats from hazards, such as mine tailings contaminating streams (an additional \$2,000,000 is needed for emergency stabilization or removal of hazards resulting from the wildfires), and
- Grant and loan funds to protect the drinking water infrastructure and public health (An additional \$1,000,000 is needed for projects already scheduled for communities not postponed or canceled).

Lead Agency: U.S. Environmental Protection Agency (for emergency removals); Idaho Department of Environmental Quality (for drinking water grant, loan and §319 non-point source programs)

Type of Assistance: Grants, Loans

Amount of Funding Available: None Specified, Additional Funding Across Several Other Programs

19. Northern Rockies National Water Quality Assessment Program

Program Description: As part of this ongoing program the Idaho U.S. Geological Survey District will coordinate water quality, sediment, and large transport sampling of the Bitterroot River Drainage Basin in Montana. The Idaho U.S. Geological Survey District has expanded the present sampling schedule and sampling locations to accommodate impacts from the extensive burn areas in the Basin.

Lead Agency: U.S. Department of the Interior -U.S. Geological Survey

Type of Assistance: Grant

Amount of Funding Available: None Specified

20. Geological Information System Data Base

Program Description: The U.S. Geological Survey has an extensive Geological Information Systems Data Base coverage for the State of Idaho including maps, land use, locations of U.S. Geological Survey real-time gaging stations, U.S. Geological Survey geologic data possibly including abandoned mines. Also, have access to the fire perimeter databases. The Idaho Department of Lands has Geological Information Systems data for fire boundaries layers.

Lead Agency: U.S. Department of the Interior -U.S. Geological Survey, Idaho Department of Lands
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified

21. Real-Time Stream Flow Monitoring

Program Description: The U.S. Geological Survey in cooperation with several local, State, and Federal agencies, operates a network of stream gaging stations throughout Idaho. They routinely collect water quality, including sediment data, at many of these sites. Further, many sites are instrumented with satellite telemetry which makes the data available in real-time. This data is useful in evaluating the effects of wildfires on flood magnitudes and frequencies and stream water quality and its impact on fish populations.

Lead Agency: U.S. Geological Survey
Type of Assistance: Grant, Cost-Share
Amount of Funding Available: \$200,000

22. Stream Temperature Monitoring and Modeling

Program Description: The U.S. Geological Survey in cooperation with Idaho Department of Environmental Quality is currently involved in a program to collect and analyze stream temperature data in about 230 stream reaches within the Salmon and Clearwater River Basins. Many of these reaches are located within areas burned by wildfires this summer. This data will be valuable in evaluating the pre and post conditions of the streams and the impacts on ecological communities living within the watershed.

Lead Agency: U.S. Geological Survey
Type of Assistance: Federal/State Cooperative Program
Amount of Funding Available: \$500,000

23. Emergency Fire Rehabilitation

Program Description: Protect and re-establish perennial vegetation to stabilize watersheds and prevent invasion of exotic weeds, including those that contribute to hazardous fuels (i.e. cheat grass, medusa head wild rye, etc.).

Lead Agency: U.S. Department of Interior - Bureau of Land Management, Idaho State Office

Type of Assistance: Technical Assistance

Amount of Funding Available: Funding Based On Annual Need

24. Fire Prevention/Education and Urban/Wildland Interface

Program Description: Comprehensive program to educate the general public regarding fire awareness, prevention and fire risks associated with communities in an urban/wildland interface. Education presented through a variety of channels and venues.

Lead Agency: U.S. Department of Interior - Bureau of Land Management

Type of Assistance: Existing Fire Budget

Amount of Funding Available: Approximately \$85,000

25. McCord Environmental Education Center (working title)

Program Description: New program to convert recently acquired private property in the Boise interface to an environmental education center with model landscaping and survivable space. Seeking funding to complete work and maintain programs. They estimate a need for \$500,000 to successfully move forward.

Lead Agency: U.S. Department of Interior - Bureau of Land Management

Type of Assistance: Still seeking funding from a variety of sources

Amount of Funding Available: None

26. National Forest Service and Bureau of Land Management Restoration Program

Program Description: The Bureau of Land Management and Forest Service have programs for forest and rangeland rehabilitation. Included in these programs is the Stewardship Incentive Program. The agencies involved requested additional funding of approximately \$1.6 billion for fire preparedness resources, new funding to increase cooperative programs in support of local communities, fuels treatment and burned area restoration, and replenishment and enhancement the Departments' fire suppression accounts. They have not identified the proportion of these funds that relate to the State of Idaho.

Lead Agency: U.S. Department of Interior - Bureau of Land Management, U.S. Department of Agriculture - Forest Service
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified, Funds Appropriated by Congress

27. Dislocated Worker National Reserve Grant

Program Description: The State may apply to the U.S. Department of Labor for National Reserve Grants to provide temporary employment for displaced workers that will support the disaster recovery process. Federal, State and local governments can use these funds, but are limited to dislocated workers who must meet certain eligibility requirements. The funds would employ these workers to assist with projects designed to renovate or reconstruct the areas damaged by the fires.

Lead Agency: Idaho Department of Labor
Type of Assistance: Grant
Amount of Funding Available: None Specified; Based On Need And Money Available

28. State Land Rehabilitation Program

Program Description: The program rehabilitates State Endowment Lands and damages due to fire suppression efforts of fires that were the responsibility of Idaho Department of Lands. Provide technical assistance, including hydrologists, fisheries, geotechs, Geological Information Systems and assist with identifying damages and developing plans.

Lead Agency: Idaho Department of Lands

Type of Assistance: Technical Assistance
Amount of Funding Available: Money Is Available Through Budgeting Process

29. Resource Conservation and Rangeland Development Program

Program Description: Program provides long-term, low-interest rate loans to farmers and ranchers for resource management projects and improvements. Management projects and improvements include:

- Conserving soil and water resources
- Promoting efficient and beneficial use of the State water resources through implementation of Total Maximum Daily Loads, or the amount of daily pollution into a water resource
- Improving riparian areas for multiple use
- Conserving and improving fish and wildlife habitat
- Increasing agricultural productivity of croplands, pastures and hay land, rangelands, and woodlands

Lead Agency: Idaho Soil Conservation Commission
Type of Assistance: Grant, Loan, Cost-Share
Amount of Funding Available: 2-3 million Available Annually, However Much Of This Money Has Already Been Allocated To Watershed.

30. Federal Highway Administration - Emergency Relief Program

Program Description: Emergency relief funding for Federally designated highway routes.

Lead Agency: Idaho Transportation Department
Type of Assistance: Response and Recovery Assistance
Amount of Funding Available: None Specified

31. University of Idaho, Civil Engineering Department

Program Description: Academic specialists in eco-hydraulics, hydrology, flood forecasting, watershed restoration, slope stability and modeling.



Lead Agency: University of Idaho, Department of Civil Engineering
Type of Assistance: Technical Assistance
Amount of Funding Available: None Specified

STATE OF IDAHO



DR-1341-ID

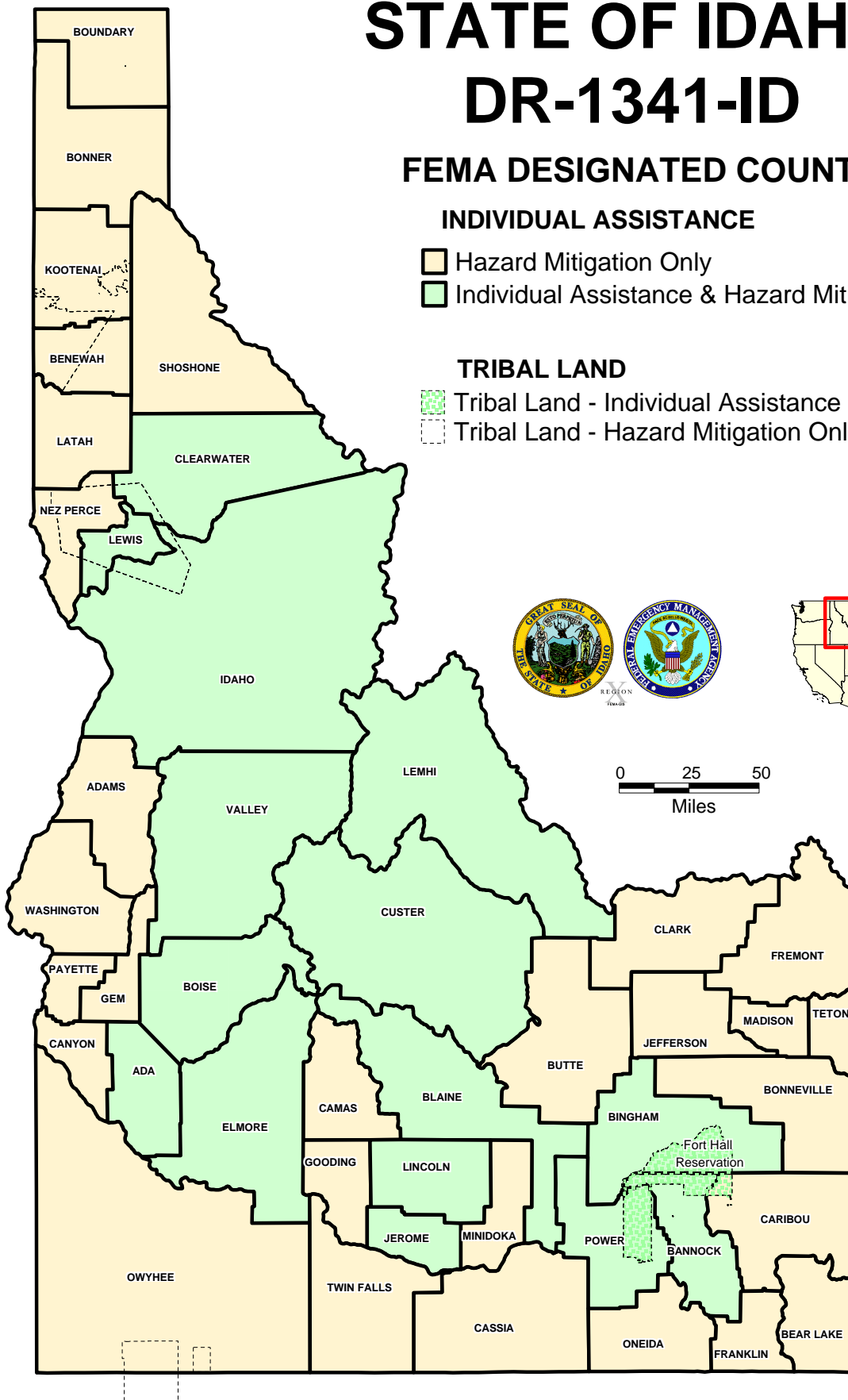
FEMA DESIGNATED COUNTIES

INDIVIDUAL ASSISTANCE

-  Hazard Mitigation Only
-  Individual Assistance & Hazard Mitigation

TRIBAL LAND

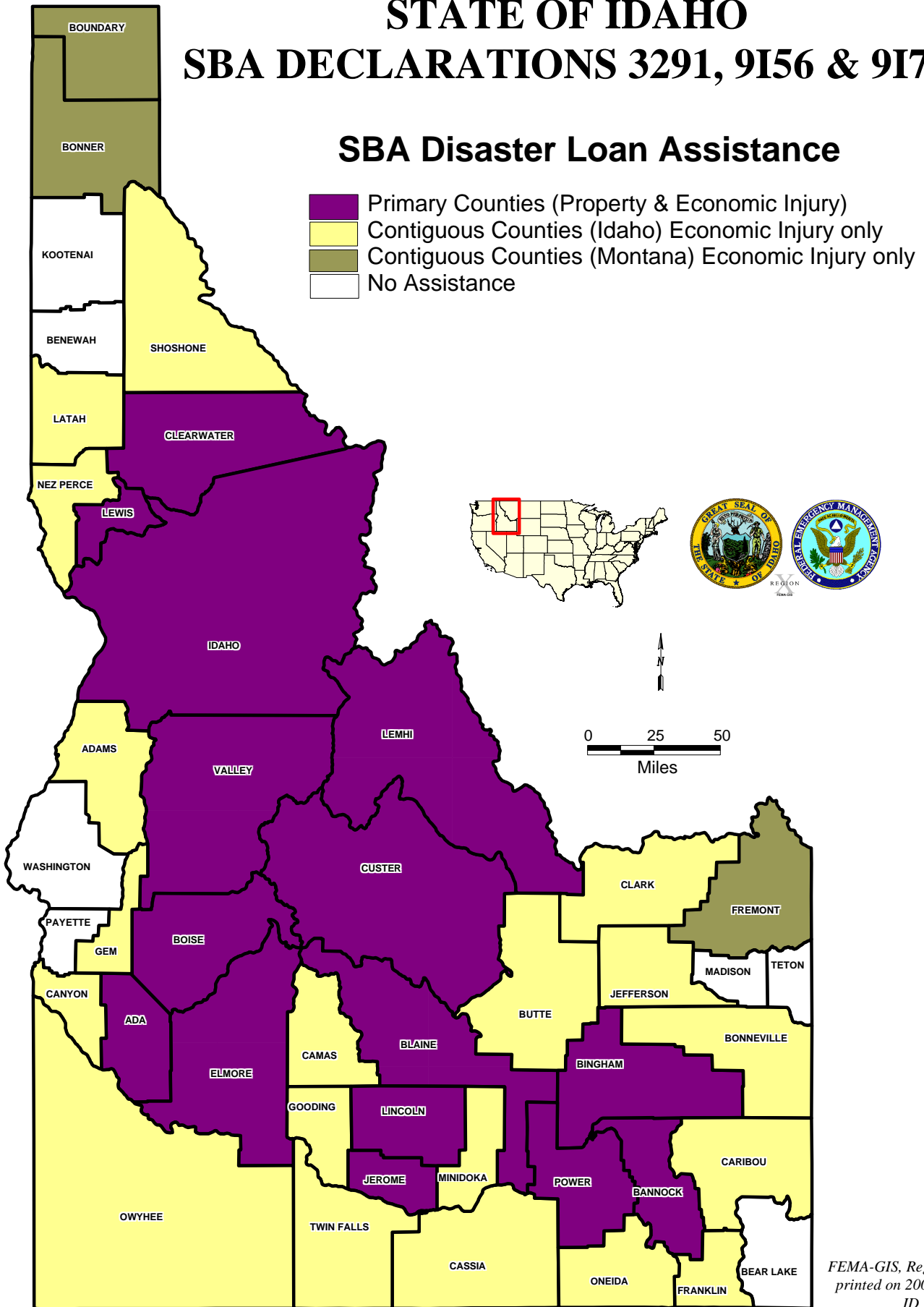
-  Tribal Land - Individual Assistance & Hazard Mitigation
-  Tribal Land - Hazard Mitigation Only



STATE OF IDAHO

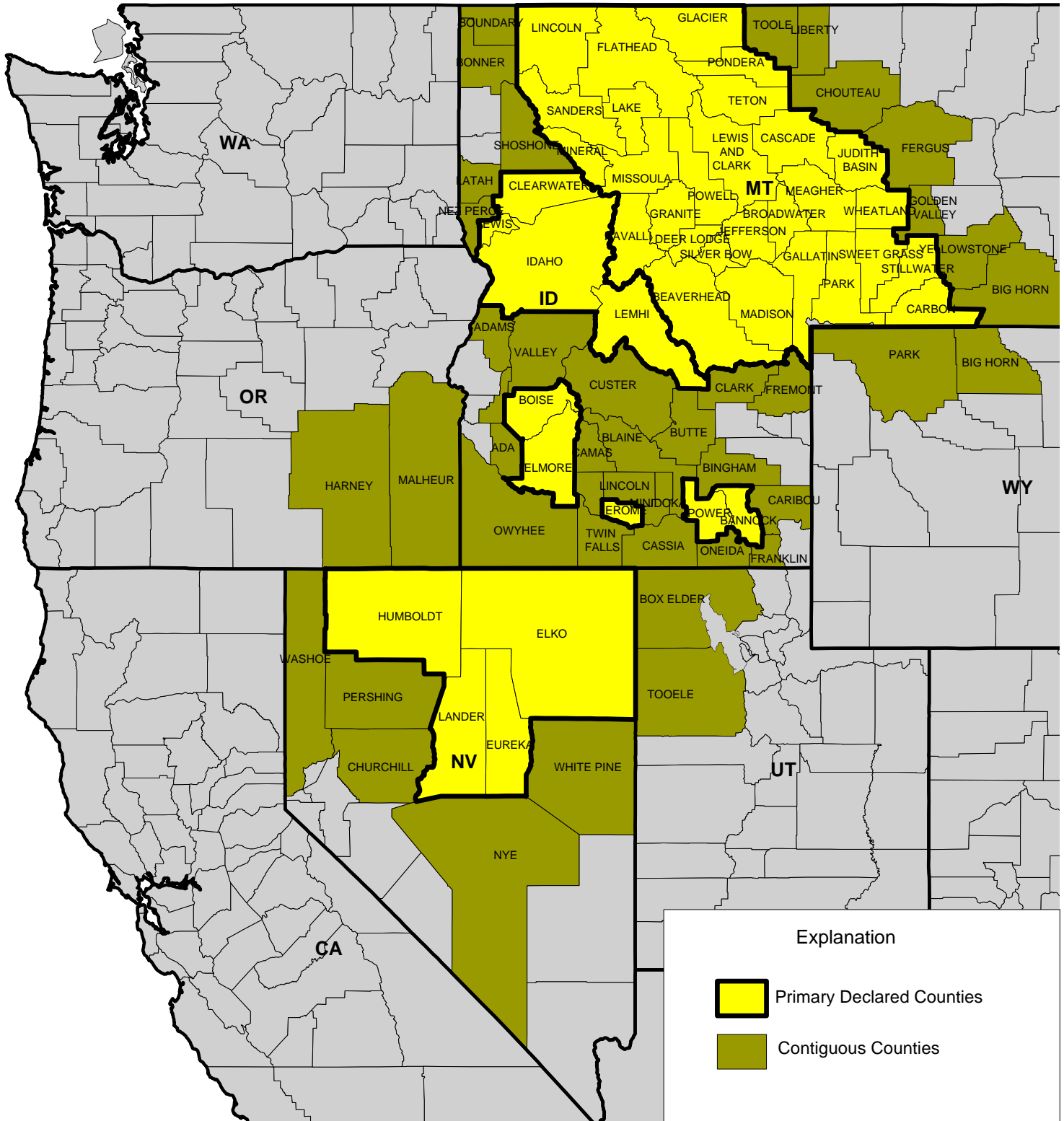
SBA DECLARATIONS 3291, 9I56 & 9I71

SBA Disaster Loan Assistance



U.S. Department of Agriculture Farm Service Agency EM Loan Assistance

Wildfires in Western U.S., Summer, 2000



US Corps of Engineers Risk Assessment

